

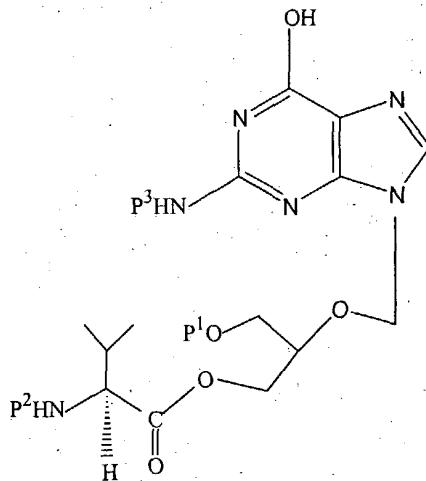
WHAT IS CLAIMED IS:

1. 1. The compound 2-(2-amino-1,6-dihydro-6-oxo-purin-9-yl)methoxy-3-hydroxy-1-propanyl-L-valinate or a pharmaceutically acceptable salt thereof, in the form of its (R)- or (S)-diastereomers, or in the form of mixtures of the two diastereomers.
1. 2. The compound according to Claim 1 comprising said mixture containing equal amounts of its (R)- and (S)-diastereomers.
1. 3. The compound according to Claim 1 wherein the pharmaceutically acceptable salt is the hydrochloride.
1. 4. A compound according to Claim 1 in crystalline form.
1. 5. The compound of Claim 1 which is (R)-2-(2-amino-1,6-dihydro-6-oxo-purin-9-yl)methoxy-3-hydroxy-1-propanyl-L-valinate and its pharmaceutically acceptable salts.
1. 6. The compound of Claim 1 which is (S)-2-(2-amino-1,6-dihydro-6-oxo-purin-9-yl)methoxy-3-hydroxy-1-propanyl-L-valinate and its pharmaceutically acceptable salts.
1. 7. A compound according to Claim 5 wherein said salt is the hydrochloride.
1. 8. A compound according to Claim 6 wherein said salt is the hydrochloride.
1. 9. A pharmaceutical composition comprising a compound according to Claim 1.
1. 10. A pharmaceutical composition according to Claim 9 which includes a pharmaceutically acceptable excipient or carrier.
1. 11. The composition according to Claim 10 for intravenous administration.

- 1 12. The composition according to claim 10 for oral administration.
- 1 13. The composition according to claim 10 for topical administration.
- 1 14. The composition according to claim 10 in the form of an intravitreal
2 implant.
- 1 15. A method of treating an animal afflicted with, or at risk for, a viral or
2 related disease which method comprises administering a therapeutically acceptable
3 amount of a compound of Claim 1 to said animal.
- 1 16. The method of Claim 15 wherein the compound is administered orally.
- 1 17. The method of Claim 15 wherein the compound is administered
2 topically.
- 1 18. The method of Claim 15 wherein the compound is administered as an
2 intravitreal implant.
- 1 19. The method of Claim 15 wherein the compound is administered as the
2 form of an injection.

1 20. A process for preparing the compound 2-(2-amino-1,6-dihydro-6-oxo-
2 purin-9-yl)methoxy-3-hydroxy-1-propanyl-L-valinate or a pharmaceutically
3 acceptable salt or diastereomers thereof which process comprises:

4 (a) removal of an amino- and/or hydroxy-protecting group from a
5 compound with the formula



8 wherein:

9 P¹ is a hydroxy-protecting group or hydrogen, P² is an amino-protecting
10 group, and P³ is hydrogen or P²;
11 to afford the compound 2-(2-amino-1,6-dihydro-6-oxo-purin-9-yl)methoxy-3-hydroxy-
12 1-propanyl- L-valinate or a pharmaceutically acceptable salt thereof;

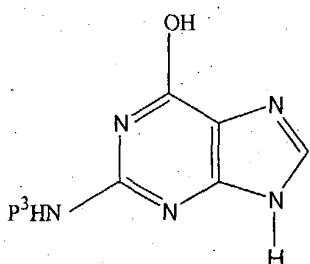
13 (b) conversion of the compound 2-(2-amino-1,6-dihydro-6-oxo-purin-9-
14 yl)methoxy-3-hydroxy-1-propanyl-L-valinate into a pharmaceutically acceptable salt
15 thereof;

16 (c) esterification of 2-(2-amino-1,6-dihydro-6-oxo-purin-9-yl)methoxy-1,3-
17 propanediol (ganciclovir) or a salt thereof, with an activated derivative of L-valine;

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18 (d) condensation of an optionally substituted guanine of the formula

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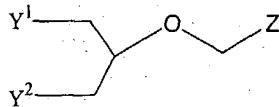
(IV)

22 optionally in persilylated form,

23 wherein:

24 P³ is hydrogen or an amino-protecting group, with an 2-substituted glycerol of
25 the formula

26



27

28 wherein:

29 Y¹ and Y² independently are halo, lower acyloxy, lower alkyloxy, or
30 aryl(lower)alkyloxy groups, and Z is a leaving group selected from lower acyloxy,
31 methoxy, isopropoxy, benzyloxy, halo, mesyloxy or tosyloxy; optionally in the
32 presence of a Lewis acid catalyst, to provide the compound 2-(2-amino-1,6-dihydro-
33 6-oxo-purin-9-yl)methoxy-3-hydroxy-1-propanyl-L-valinate; or

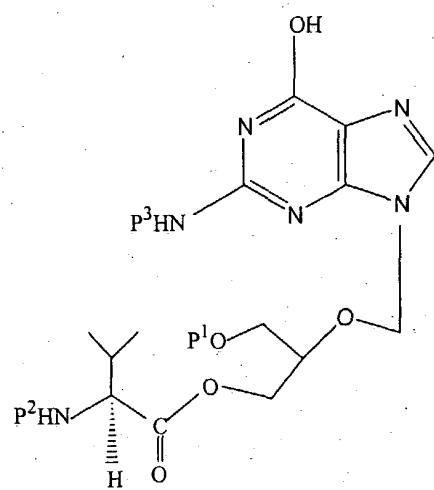
34 (e) partial hydrolysis of the bis ester 2-(2-amino-1,6-dihydro-6-oxo-purin-9-
35 yl)methoxy-1,3-propanediyl bis (L-valinate) or a salt thereof to afford the monoester
36 2-(2-amino-1,6-dihydro-6-oxo-purin-9-yl)methoxy-3-hydroxy-1-propanyl-L-valinate
37 or a pharmaceutically acceptable salt thereof; or

38 (f) diastereomeric separation of 2-(2-amino-1,6-dihydro-6-oxo-purin-9-
39 yl)methoxy-3-hydroxy-1-propanyl-L-valinate into its (R) and (S) diastereomers.

1 21. The process of Claim 20, wherein the removal of amino- and hydroxy-
2 protecting groups is carried out under acidic conditions.

1

22. A compound of the formula



2

3 wherein

4 P_1 is hydrogen or a hydroxy-protecting group and P_2 is an amino-protecting group.